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**MINIMIZING INTERACTION COSTS AMONG COMPONENTS  
OF COMPUTER PROGRAMS**

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**ABSTRACT**

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A system and method for minimizing total cost of interaction among components of a computer program which are each characterized by at least one implementation property. A implementation property may, for example, be a choice of string representation (e.g. ASCII, UNICODE, EBCDIC or choice of data structure (e.g. hash, tree, compressed). The method comprises the steps of: carrying out a run of the program; monitoring that run to measure an amount of interaction between each pair of components; determining a cost of interaction between each pair of interacting components; determining a choice of implementation properties which minimizes total cost of the run; and assigning choices of implementation properties to said components for a future run of the program.